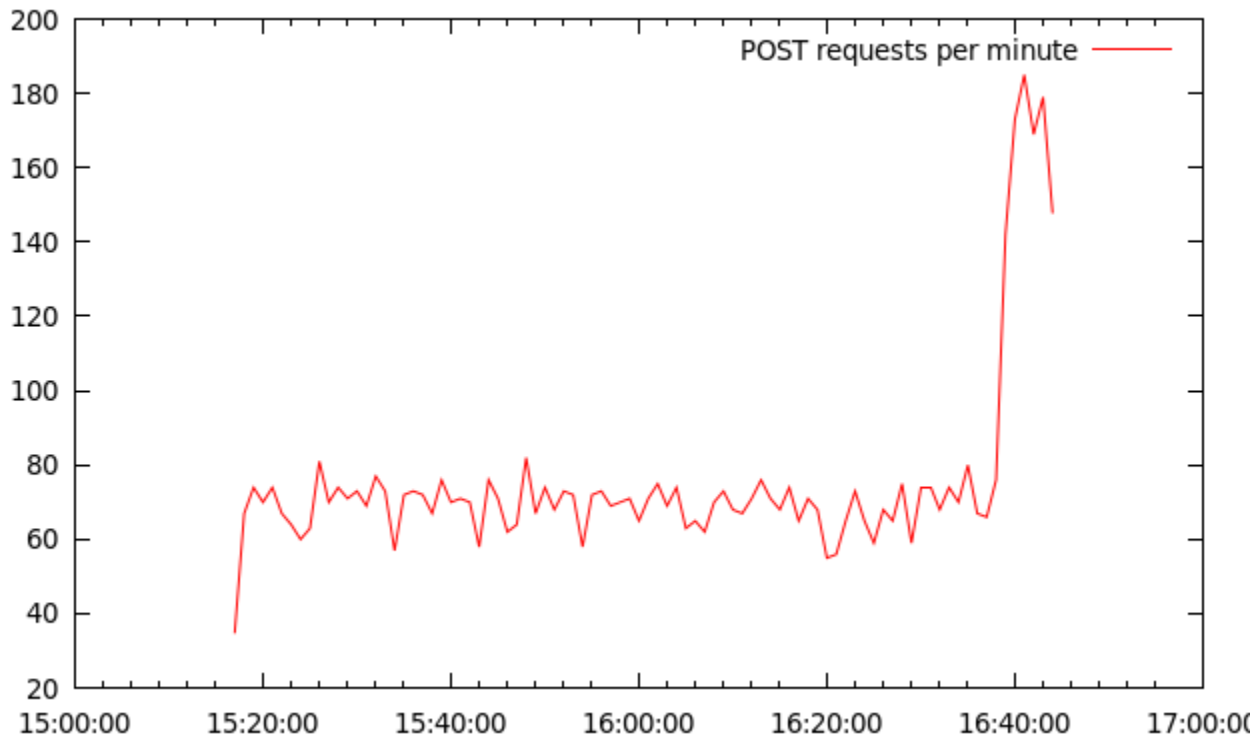# How to plot OPeNDAP requests per minute

Follow these instructions to make a nice graph showing how many OPeNDAP HTTP requests are handled per minute. This can give us an idea of how well the server is performing.

Step-by-step guide

1. Locate the Tomcat access log for the date/time range you wish to plot. On dataserver2 the log files are located at: */usr/local/apache-tomcat-7.0.41/logs/localhost_access_log.[date].txt*
2. If desired, extract a subset of this file. For example maybe you only want to include HTTP requests made during a test run, or only requests made from a specific host, etc.
3. Extract only the OPeNDAP POST requests into a separate file: *% grep "POST /opendap" localhost_access_log_2014_07_25.txt > opendap_posts.txt*

   > You may also want to exclude unsuccessful requests (i.e. response other than 200 OK), which can be done with: grep -e 'POST /opendap.*HTTP/1.1" 200 ' accesspost.txt

4. Create a file containing the number of POST requests per minute: *% cat opendap_posts.txt | cut -c33-37 | uniq -c > posts*
   - The format must be: *count HH:MM*
5. Create a plot using gnuplot software:

   - **gnuplot commands**

   ```
   gnuplot> set xdata time
   gnuplot> set timefmt "%H:%M"
   gnuplot> set xtics 1200
   gnuplot> set linestyle  1 lt 1 lc 7
   gnuplot> plot "posts" using 2:1 with lines title "POST requests
   per minute"
   ```

6. The plot can then be saved to the clipboard and pasted into an image program such as gimp.

Related articles

- How to setup & run a MIIC OPeNDAP Server
- How to build the MIIC OPeNDAP plugin
- How to debug OPeNDAP SSFs
- How to Profile OPeNDAP Server
- How to plot OPeNDAP requests per minute